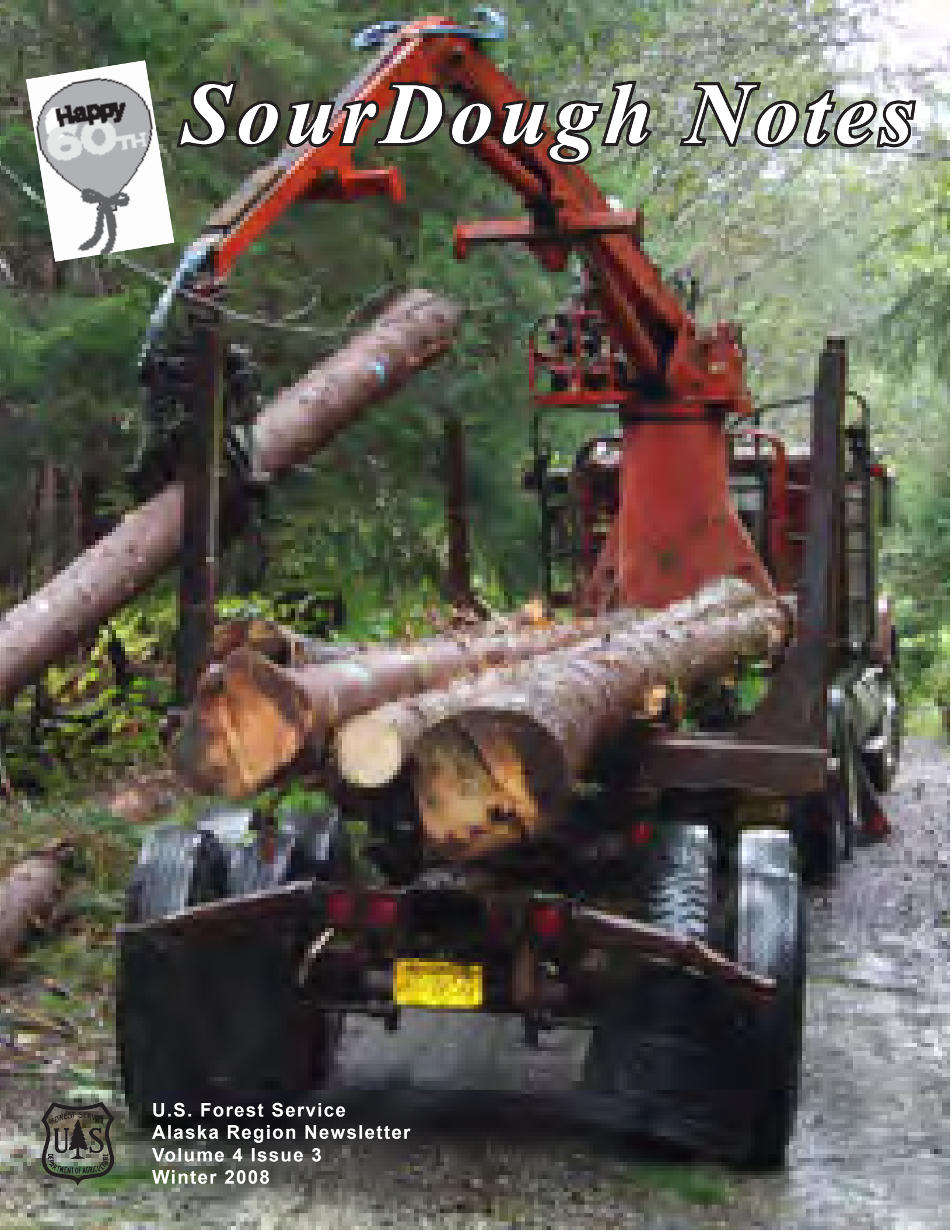


SourDough Notes

U.S. Forest Service
Alaska Region Newsletter
Volume 4 Issue 3
Winter 2008

ON THE COVER:

Greg Jones loads house logs from second growth thinning in Starrigavan Valley. The logs will be used for a Forest Service rental cabin. Photo by Craig Buehler, Sitka Ranger District. Story begins on page 3.

SourDough Notes

Quarterly newsletter for the
U.S. Forest Service
Alaska Region
P. O. Box 21628
Juneau, AK 99802-1628
http://www.fs.fed.us/r10

Winter 2008

Produced by:
Regional Public Affairs Office
Teresa Haugh, Editor
Annette Untalasco, Graphics

Submissions:
SourDough Notes is written for people interested in the Alaska Region. Your suggestions, articles, and photographs are welcome. Please contact:

Teresa Haugh
Public Affairs Office
USDA Forest Service
P. O. Box 21628
Juneau, AK 99802
(907) 586-9337
thaugh@fs.fed.us

Articles should be no more than 800 words and may be edited. Submitted articles may not all be printed. Submitted digital photos should be sent as high resolution TIF or JPG. Please contact the Public Affairs Office if you have questions.

INSIDE:

Alaska's National Buying Team

By Marie Kanan, Procurement Technician, Regional Office

Alaska's National Buying Team is now two years old, and is one of 11 teams around the nation that are called out when local resources are overwhelmed and need help with an emergency incident. Buying teams support incident procurement through local admin staff, procuring a wide range of services and supplies, and renting land and equipment.

The Alaska Buying Team consists of a leader, deputy leader, four team members, and one trainee position. Dean Graham is the Alaska Region's Buying Team Leader. Teams are called out on a rotational basis to incidents around the nation.

In 2007, the team responded to incidents in four states: the BICY Fire near Naples, Fl.; Milford Flat and Greenville Fires near Cedar City, Utah; Ahorn and Fool Creek Fires near Great Falls, Mont.; and the East Zone Fire near McCall, Idaho.

Want to Join the Team?

Now is the time of year to start considering joining the Buying Team. An application will soon be circulated among the credit card holders. This is your opportunity to support the Forest Service mission and help your neighbors. You are guaranteed long hours, a high paced environment, and the chance to see new places.

Apply for the team, either as a primary or alternate and/or both. There is a need for qualified personnel to fill the team as a primary or an alternate. Watch for the application!

There is one classroom course required (S-260) that will be offered in the spring. Those cardholders interested in applying for the team should plan on taking the course when offered, but should apply now with the notation of "pending class" on the application.

When You Wish Upon a Starr...Starrigavan Integrated Resource Plan

By Perry Edwards, Fisheries & Wildlife Biologist, Tongass National Forest

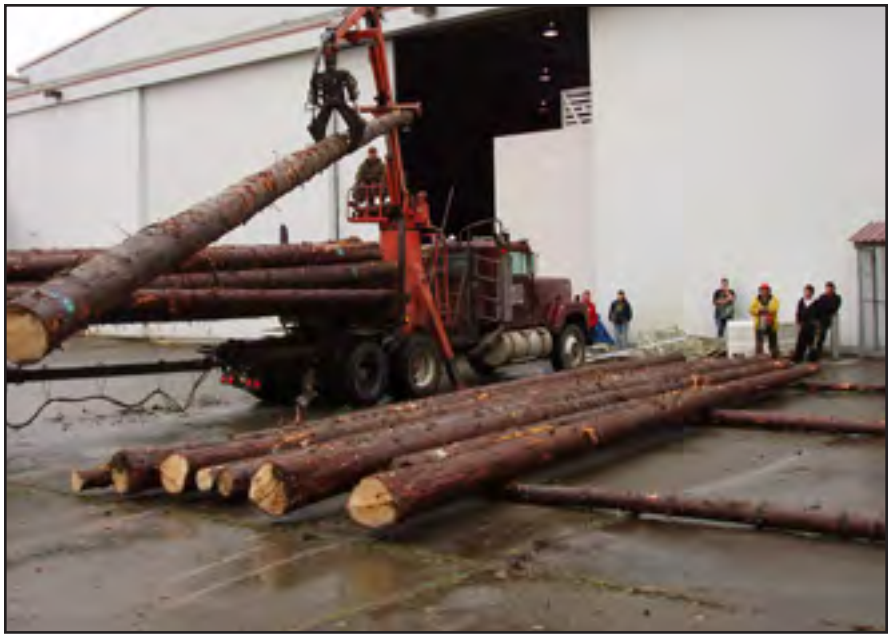
It "seemed like a good idea at the time." That's how we at the Sitka Ranger District describe the common practice of "stream cleaning" that was conducted on the Starrigavan watershed in the 1970s to remove cluttered wood out of stream channels.

The Starrigavan watershed encompasses approximately 4,100 acres. It is located about seven miles north of downtown Sitka on the northern end of the road system. It is home to anadromous and resident fish species including steelhead trout, coho, pink and chum salmon, cutthroat trout, and Dolly Varden. Wildlife species using the area include Sitka black-tailed deer, brown bear, bald eagles, marten and red squirrels.

The watershed projects were conducted after clearcut harvesting in the '60s and '70s of over 484 acres of National Forest System land and 255 acres of state land. Five miles of logging roads were constructed. Harvest was completed in upland and riparian areas. The work directly impacted stream banks through compaction and soil displacement. There was a decrease in the amount of large woody debris in the streams.

The area evolved into dense young growth forest composed of Sitka spruce, western hemlock and red alder. The trees average less than 10 inches in diameter at breast height and less than 50 feet tall. Much of the project area is devoid of or severely lacking understory vegetation such as blueberry bushes or bunchberry. Understory is important for deer as forage and for fish when terrestrial insects fall off shrubs and become food.

The Sitka Ranger District hasworked to improve the condition of the Starrigavan watershed over the years. An old logging road was made into an off-highway vehicle trail in a cooperative effort with the Sitka Recreation Vehicle Association. Between 1986 and 1995, district personnel placed large woody debris on 1/2 mile of stream channel that was nearly devoid of wood. This increased the quality and quantity of fish habitat in tributaries of Starrigavan Creek. Subsequent monitoring has identified up to a four-fold increase of juvenile coho in project stream segments.



Large diameter thinned materials from the Starrigavan watershed were provided to University of Alaska Southeast students to build an accessible cabin on the Tongass road system.

In 1995, we converted old borrow pits from road construction to off-channel rearing ponds for coho salmon. Between 1995 and 2006, we thinned a total of 45 acres in riparian areas along Starrigavan Creek and its tributaries to improve growth rates of conifers and allow light to the forest floor to improve shrub growth. Brad Krieckhaus, our district botanist, will help us work on ways of jumpstarting the understory vegetation through transplanting, seeding, and growing some of the vegetation from cuttings. We also have a contract awarded for 36 more acres of thinning in riparian zones in 2008.

In 2007, the Sitka Ranger District began looking at "big picture" opportunities for recreation, watershed, fisheries, wildlife and botany for the watershed. This developed into the Starrigavan Integrated Resources Plan. The short list of watershed, fish, and wildlife projects includes:

- Improving the four existing coho rearing ponds and constructing five more;
- Placing large, woody debris on 3.5 miles of streams on federal and state land;
- Reconstructing 100 yards of Starrigavan Creek;
- Improving the Nelson logging road at the stream crossing; and,
- Thinning 300+ acres of upland and riparian areas on both state and federal land as a stewardship projects for alternative fuels development like "Biobricks."

cont'd page 4

Our hope is to increase productivity of the stream for coho salmon and see increased numbers returning each year.

Stewardship projects are "hot stuff" these days. In this spirit of practicing good management, employees Marty Becker and Rob Miller came up with a novel idea while we were out thinning one day. "Why don't we let the public take the downed wood material for firewood?" they asked. Not only would this give the locals a chance to get firewood on the road system, it would also open up the understory and make it easier for deer to move through the thinned areas. It would save project dollars while giving people what they needed. In addition, we were able to provide some of the larger diameter thinned materials for a cabin that would be ADA accessible, the first of its kind on a road system on the Tongass National Forest. The cabin will be built by University of Alaska Southeast students as a "hands-on" class project.

We will continue to look for ways to conduct these kinds of projects, to develop new partnerships, and to involve the public. Stay tuned!

If you want to see more about Starrigavan IRP or the Young Growth plan for 56,000 acres on the Sitka Ranger District, visit our website at: http://www.fs.fed.us/r10/tongass/districts/sitka/fwwes/watershed/starrigavan.shtml. You can also contact me at pedwards@fs.fed.us or Ken Coffin at kcoffin@fs.fed.us.

Cordova ♥ Fungus!

Erin Cooper, Wildlife Technician, Cordova Ranger District

If there is one thing Cordova, Alaska, has plenty of, it's rain! One of the wonderful bonuses of living in a rain forest is that we have an abundant supply of mushrooms, lichens and other fungal treasures. There has been lively interest in the last few years in learning more about how to make use of these important resources, so, it seemed that starting the Cordova Fungus Festival was just the right way to celebrate our riches.

On Labor Day weekend 2007, fungus enthusiasts of all ages participated in the first annual fungus festival in Cordova. Mushroom picking has long been a favorite tradition of many Cordovans, so this year the Forest Service, along with the Prince William Sound Science Center, Alaska Sea Grant, Eyak Corporation and the Copper River Watershed Project, turned this activity into a weekend event. Whether one's interests in mushrooms and lichens were medicinal, ecological, artistic or culinary, the Fungus Festival offered something for just about everyone.

Attendees participated in a wide array of activities that included lichen hikes, mushroom forays, medicinal mushroom lectures, and dyeing wool with both mushrooms and lichens. Visitation to the Forest Service office increased dramatically during the festival. Folks from 5 to 60 brought in their buckets of fungus for Carol Hernley, forestry technician and local mushroom expert, to identify. As part of the "Celebrating Wildflowers" portion of the festival, Forest Service ecologist Karen Dillman traveled from Petersburg to give presentations on lichen identification and ecology that included a popular field trip.

Although lichens can be found in Cordova year-round, it is the August rains and dropping temperatures that give rise to mushrooms of every hue and size, including prized edibles such as chanterelles, boletes and hedgehogs. The popularity of mushroom picking has been increasing over the years, but there was a need to educate the public on how to properly pick mushrooms as well as species identification and other fungal facts. For a week before and after the festival, the Cordova Ranger District provided a mushroom and lichen interpretive exhibit in the lobby at the district office. The exhibit included mushroom identification posters, information on the role of fungus in the forest, as well as a dissecting scope with examples of mycorrhizal areas on spruce roots. These are places where the fungus has invaded the root in a mutualistic relationship: the plant gets increased amounts of water and minerals while the fungus gets carbohydrates from the plant's photosynthesis.

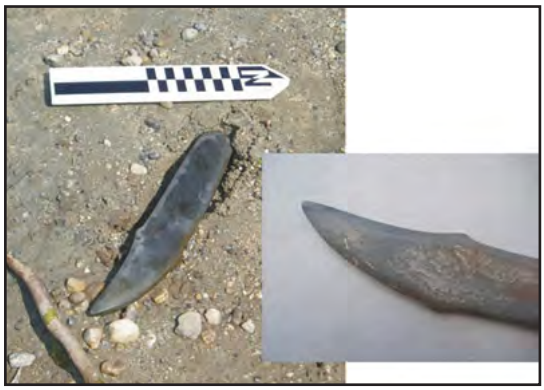
Paul Curran stands next to his prize find: a beautiful Chicken of the Woods mushroom. Photo by Carol Hernley.

After the success of the festival in 2007, mushroom enthusiasts in Cordova are already planning for 2008. The event will feature additional speakers and a possible mycoblitz (fungal species survey). Anyone interested in learning more about the festival can contact Carol Hernley at (907) 424-7661, or chernley@fs.fed.us.

Archaeologists Revisit Ancient Fish Trap Site

By Jane Smith, Archaeologist, Tongass National Forest

This summer, I joined other Forest Service archaeologists Nicole Lantz, Martin Stanford, and Mark McCallum to visit the Bradfield Fish Trap site on the Wrangell Ranger District. The ancient complex reaches across a huge tide flat. We believe it represents the largest wood stake fish trap site in Southeast Alaska, and possibly rivals any occurring along the entire Northwest Coast.

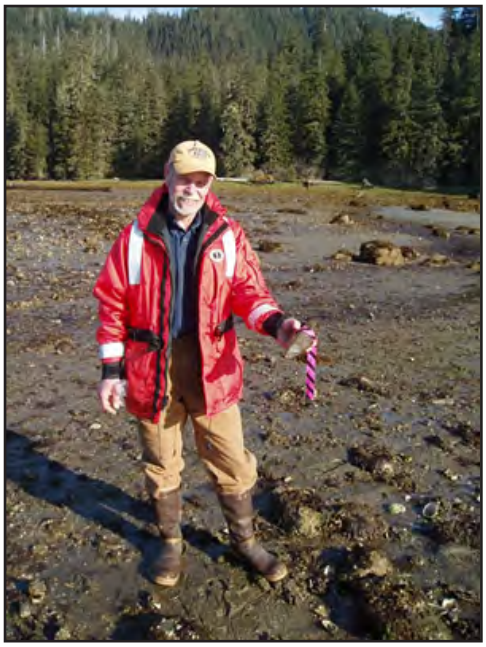


This war pick was found on the tide flats in Bradfield Canal. Photo by Jane Smith.

The traps are made of thousands of stakes sharpened with a stone tool and driven point first into the tidal sediments. The stakes are positioned into at least 33 different features that either functioned independently or were part of a larger design with interconnected components. Because wood stake traps are dynamic features that are altered by erosion and shifting tidal sediments, most of what we found are merely portions of the original structures. Only a few of the features we identified display functional attributes, most resemble a jumble of stakes positioned in a non-discernable pattern. Recognizable features include linear configurations and funnel-shaped leads.

We used a laser range finder to map the traps; a task that had previously been done in 1992 with a handheld compass and a nylon, 100-meter tape. The laser proved to be an efficient tool, and when we compared the two maps, we noted similarities with regard to feature concentrations and spatial associations. We were unable to locate some of the features identified in 1992 but found new concentrations during our 2007 visit.

We collected six stakes from across the site for radiocarbon analysis. The results suggest the site was used over an 800-year period beginning approximately 2,630 years before present and continuing until 1,800 years ago.



Archaeologist Mark McCallum displays a sharpened fish trap stake that was radiocarbon dated to 2,490 years old.

While surveying the Bradfield Fish Trap tide flats, we found a carved stone weapon. The implement resembles a war pick, with a blunt point on one end and a flattened edge at the other. The weapon would probably have been hafted or set through the end of a short stout wooden handle. The flare, off center towards the pointy end, would have helped keep the stone secured to the handle. The weapon is likely a fine grained metavolcanic rock that was shaped by grinding it against coarser and harder materials. It was known to the Tlingit as a *kínde ké·t'u,* and is said to have been a chief's weapon, used to kill slaves. The finest of these weapons were ceremonial and were preserved as family heirlooms (Emmons 1991:338). This artifact and others will be on display at the Nolan Museum in Wrangell this winter.

A close up of the fish trap stake. Photo by Martin Stanford.

Emmons, G.T. 1991, *The Tlingit Indians,* Edited by Frederica de Laguna. University of Washington Press, Seattle, Washington.

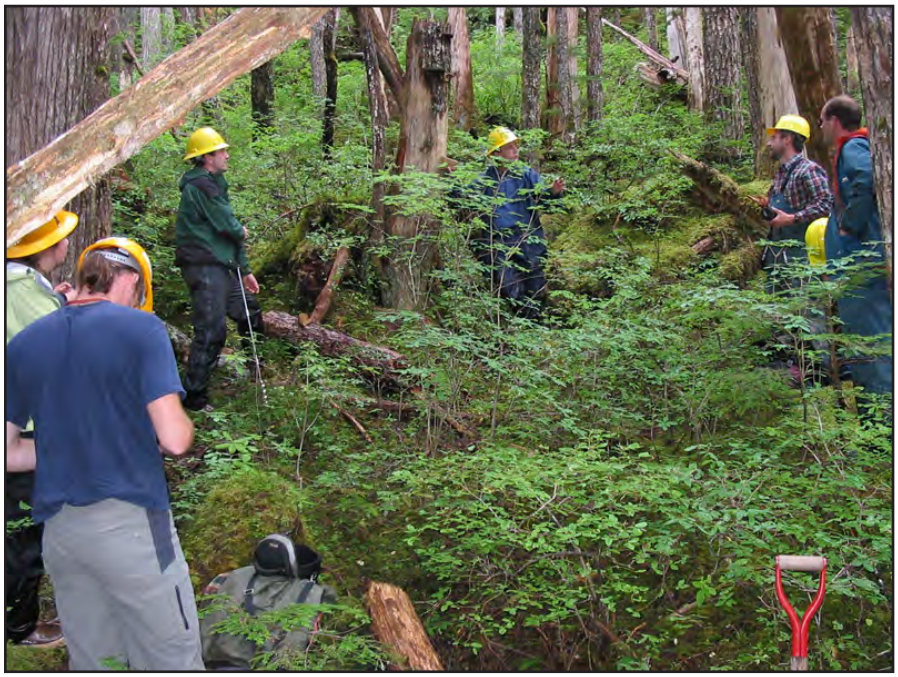
Canadian Scientists Visit the Tongass

Contributed by Darin Silkworth, Soil Scientist, Tongass National Forest. Written jointly by the U.S. participants

The Tongass National Forest is part of the coastal temperate rainforest biome. This biome includes Southeast Alaska and coastal British Columbia. Many aspects of the ecology and forest management of these two regions are similar, and in fact, they are more and more often referred to as a single region.

In an effort to forge closer cooperation between the U.S. and Canadian research and management branches, the Tongass National Forest, Pacific Northwest Research Station and the B.C. Ministry of Forests have sponsored scientific exchanges.

In September, the Tongass reciprocated for a 2006 visit to British Columbia by hosting a tour and information exchange on Prince of Wales Island September 10-13, 2007, that included five Canadians and 11 from the Tongass. Dennis Landwehr, Tongass soil scientist, organized the exchange with the goal of sharing information on common research and management concerns.



The Tongass National Forest and Pacific Northwest Research Station hosted scientists from the British Columbia Ministry of Forests on a tour and information exchange on Prince of Wales Island. Photo by Dennis Landwehr.

The first day centered on cedar and wetlands. Paul Hennon, Plant Pathologist, Forestry Sciences Laboratory and State and Private Forestry, led a discussion on cedar decline at Scary Creek. The current theory is that yellow cedar expanded its range during the Little Ice Age and is now retreating in the face of global warming. Further studies are under way to better understand frost hardiness of roots when a protective snow cover is not present.

Sheila Spores, Tongass silviculturist, discussed regeneration of red and yellow cedar. Older stands, harvested during the long-term sale, have little cedar regeneration due to initial avoidance of cedar stands, while recent stands display more cedar regeneration. A concern with regeneration is that the faster growing hemlock and spruce trees may hinder full re-establishment of cedar into the young growth stands. The site that was visited showed abundant natural red and yellow cedar regeneration.

Dave D'Amore, soil scientist, Forestry Sciences Laboratory, talked about forested wetland productivity and carbon cycle science on the Tongass. Carbon sequestration in the region is an emerging issue of concern for both the Tongass and British Columbia including sequestration in forested wetlands, young growth forests and the important role of soils and fungi in producing stable forms of carbon. Soil productivity and the relationship that disturbance has on soil productivity was also discussed throughout the visit.

The second day was spent discussing geology, glacial history, and wind generated stands on Prince of Wales Island. Jim Baichtal, Tongass geologist, outlined the major formative processes of geology and glacial geology in the Tongass. Of special interest was his discussion of the history of sea levels, the maximal extent of glaciers during past ice ages, isostatic rebound of the land masses, and the consequential development of plant and animal life on Prince of Wales Island.

The group visited the Beaver Falls Karst Area and benefited from a personal narration by Baichtal about many of the aspects of karst. Becki Saari, Tongass soils technician, dug three soil pits to display and explain the soil properties on the karst landscape. The remainder of the day was spent visiting parts of an extremely large wind generated stand and discussing old growth and wind generated stands.

The final day was spent at the Maybeso Experimental Forest at a site of a commercial thinning study and at the site of an in-stream nutrient cycling study. Spores started the conversation on the ecological attributes of young growth, commercial thinning, and the challenges the Forest faces in moving from a predominantly old growth dependent timber sale program into one sustained by young growth. Darin Silkworth, Tongass Soil Scientist, and Saari presented a detailed soil survey of the project area. Hennon discussed alder as a component in second growth stands. D'Amore introduced a joint study with Notre Dame and Michigan State University to retain nutrients from rotting salmon by placing in-stream obstructions that trap salmon carcasses.

After the day in the field, the group prepared joint meals at the bunkhouse. For entertainment, we tried to organize a Canada vs. USA Ping-Pong tournament. In the first match, Ken White, entomologist from the British Columbia Forest Service, defeated Saari. The second match saw Allen Banner, ecologist from the B.C. Forest Service, take out Silkworth. In the third contest, Karen McKeown, ecologist from the B.C. Forest Service, resoundingly beat Spores. Phil LePage, silviculturist from B.C., and Will MacKenzie, ecologist from B.C, were not able to play their matches against the U.S. opposition since the only ball broke in a heated exchange of smashes and valiant returns. The Canadians, in typical Canadian fashion did not claim victory. They did not have to, for the U.S. knew they were soundly defeated by a smaller but more proficient force.

Much was learned throughout the week. First, the ecosystems in coastal British Columbia are similar to Southeast Alaska. We have more in common with them than other parts of the U.S. They have more in common with us than elsewhere in Canada. Consequently, research being done in British Columbia is highly relevant to our work in Southeast Alaska. Finally, we learned that we need to practice if we ever hope to be competitive in Ping-Pong.

Volunteers: Invaluable Assets

By Ross Evans, Information Receptionist, Sitka Ranger District

I'd like to take this opportunity to introduce the 2007-2008 winter host at the Starrigavan Recreation Area in the Sitka Ranger District, Tongass National Forest.

Ron Vernholm is in his third winter season at the Starrigavan Recreation Area. He grew up in the Boise/Caldwell area of Idaho and now calls Montana his home. He worked for the Northwest Pipeline Company, providing natural gas pipeline maintenance services to the gathering lines throughout Wyoming, Utah and Colorado. He has two adult daughters, both living in Montana. One daughter is an employee for the Lolo National Forest and his other daughter just finished an assignment performing wildfire fuel mitigation with the Miles City Fire Department.

Vernholm decided to begin his volunteer career after both of his daughters were grown. He realized he had free time, and chose to volunteer as a way to spend it. He started as a volunteer with the Payette National Forest, maintaining buildings, water and sewer systems, generators and solar electrical He finished his third summer season with the Payette in 2007.

He saw the ad for the winter cabin host position in Sitka, applied, and was hired by Sandy Russell, Starrigavan Recreation Area Manager, for the 2003-2004 winter season. He was excited to come to Sitka, and has returned for the two subsequent winter seasons since his initial assignment.

The duties of the winter cabin host include: snow removal from rest rooms and the cabin, monitoring visitor use of the area, monitoring the artesian well, cleaning the rest rooms and providing safe well access through the snow.

Vernholm enjoys the benefits of volunteering. He meets new people, develops new friendships and learns how others live in "their neck of the woods." Vernholm also likes the opportunities to travel and visit places that come with volunteer activities. He values being able to see the beauty of a place first hand, and expects to continue volunteering "as long as I can, wherever I can."

Ron Vernholm, Volunteer

Volunteers are an invaluable asset to the Forest Service. They substantially increase the ability for each district and organization to accomplish their mission effectively and efficiently. Vernholm is an example of this—his services provide the Sitka community with unfettered access to winter recreational opportunities and a very heavily utilized artesian well.

New Research Natural Areas on the Chugach

By Rob DeVelice, Forest Ecologist, Chugach National Forest

A milestone in research natural area (RNA) establishment has been achieved on the Chugach National Forest. The four RNAs designated by the 2002 Revised Land and Resource Management Plan have been formally established. This completes a four-step process that began with:

1) A forest-wide analysis to identify a suite of potential sites for RNA designation;
2) Convergence on the four areas selected from among a set of alternatives;
3) Preparation of establishment records for each area documenting their biophysical characteristics, and finally;
4) Formal establishment through signatures from the district ranger, forest supervisor, Pacific Northwest Research Station director, and the regional forester.

The four RNAs established are:

1) Kenai Lake-Black Mountain, Seward Ranger District
2) Copper Sands, Cordova Ranger District
3) Olsen Bay Creek, Cordova Ranger District, and
4) Wolverine Glacier, Glacier Ranger District

When combined with the previously established Green Island RNA, Cordova Ranger District, the RNA network on the Chugach is comprised of five areas with the following summary characteristics:

A view from the valley bottom within the Olsen Bay Creek Research Natural Area. The entire area pictured is within the RNA. Photo by R.L. DeVelice.

Kenai Lake-Black Mountain—Among the elements of natural diversity represented in this 5,830-acre area are plant communities dominated by Sitka spruce/white spruce hybrids (i.e., "Lutz" spruce), mountain hemlock high elevation forests, and a wide diversity of shrub-land and herbaceous communities. Landforms present include the conical Black Mountain, the shoreline of Kenai Lake, and alpine areas with remnant glaciers.

Copper Sands—This 1,500-acre area is comprised of shifting barrier islands at the mouth of the Copper River Delta. Barrier islands are relatively uncommon along the Pacific coastline. The Copper River Delta system includes some of the best developed barrier islands on the North Pacific coast. In addition to the dynamic forces of wind and waves that create and continuously modify all barrier islands, Copper Sands was greatly affected by uplift associated with the March 27, 1964 Great Alaska Earthquake. The quake rearranged the shoreline, which altered the previous pattern of water flow, causing greatly accelerated erosion and deposition at different locations in the area.

Olsen Bay Creek—This 6,850-acre area is located at the head of Olsen Bay in Port Gravina, Prince William Sound. The boundary encompasses most of the Olsen Bay Creek watershed, connecting shoreline to ridgetops on both sides of the bay. The interior basin is mostly forested, and is rimmed by a combination of mountain peaks and rocky ridgelines. The mountaintops are snow covered much of the year.

Wolverine Glacier—A wide array of alpine tundra plant communities and all but the terminus of the glacier are included in this 6,900-acre RNA. The area provides a data source for understanding glacier-related hydrologic processes, hazards, and climate change.

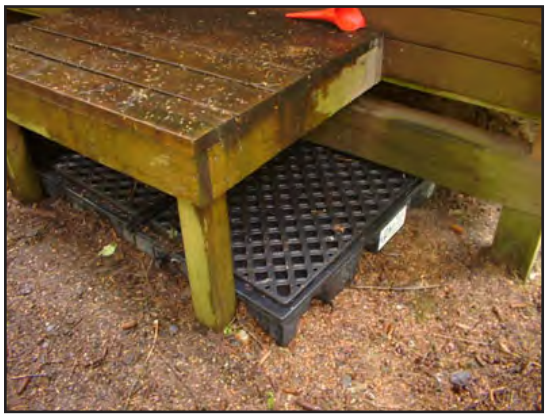
Green Island—Included in the 2,900-acre RNA is about 35 percent of Green Island and all of Little Green Island and The Needle. Green

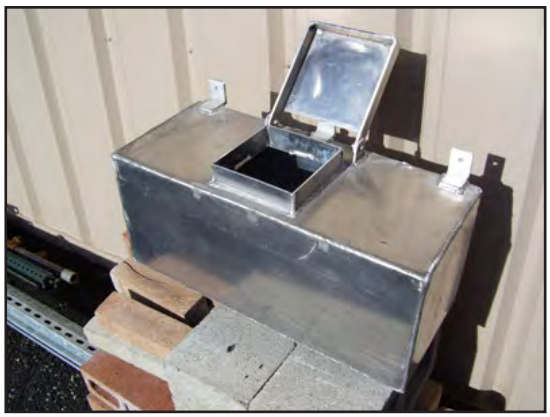
Island is covered with closed forests of Sitka spruce, western hemlock, and mountain hemlock; dwarf mountain hemlock forest; mountain hemlock woodland; and treeless muskeg. Little Green Island supports some of the largest trees on the forest. The marine environment surrounding Green and Little Green Islands is closely linked to the terrestrial upland ecosystems of the RNA through the movement of energy, nutrients, and plants and animals.

The five establishment records are posted on the forest's internet page at: http://www.fs.fed.us/r10/chugach_forest_plan/plan_docs1.html.

New Tanks and Containment Units Prevent Spills

By Mike Dilger, Cabin and Trails Leader, Admiralty National Monument





Left: A new style containment unit will contain oil spills and reduce soil and water contamination.

Right: The new oil tanks have a 6" square opening to help curb spills during refilling. Photos by Mike Dilger.

At some Forest Service public use recreation cabins in Alaska, oil stoves are a cost effective way to provide heat. Oil stoves will heat the cabin all night long without someone tending the heater. The stoves can keep the cabin warm while users are away during the day on a hunt, hike or other recreation activity.

One potential risk of oil stoves, however, is the possibility of soil and water contamination from oil spills. There are two ways to minimize this risk: prevent the spill in the first place, and contain any spill that may happen. On Admiralty National Monument, newly-designed heating oil tanks are expected to reduce or prevent spills, and a new, commercially available product has been used to catch and contain spills if they occur during fuel transfer.

The tanks currently in use at Forest Service cabins on Admiralty National Monument and much of the Tongass National Forest are welded aluminum tanks with a 5-gallon capacity and a 2" diameter filler neck. The 2" diameter filler neck isn't a great target when pouring from a jug; this is one disadvantage of the tanks currently in use. It is also difficult to determine the level of heating oil inside the tank through the small opening. Even if a funnel is used to pour heating oil, it is possible that the fuel level in the tank is unknown until the fuel level inside the funnel begins to rise. At this point, the tank is full, and any remaining fuel in the funnel is excess and will spill around the outside of the tank and onto the ground.

A new tank was designed that makes use of a larger opening, which is 6" square and is covered by a hinged top. The new tank is 10" tall, 10" deep, and 24" wide for a capacity of 10 gallons. The outlet is on one side, centered 1" up from the bottom of the tank. The large surface area of the bottom of the tank and the height of the outlet 1" above the bottom of the tank allows the tank to hold 1 gallon of water and contaminants before being released to the fuel line and fuel filter. For ease of cleaning the tank, there is a threaded drain plug in the bottom surface of the tank. It is centered directly below the 6" opening so it can be plugged with a stopper before removing the threaded plug for draining the tank.

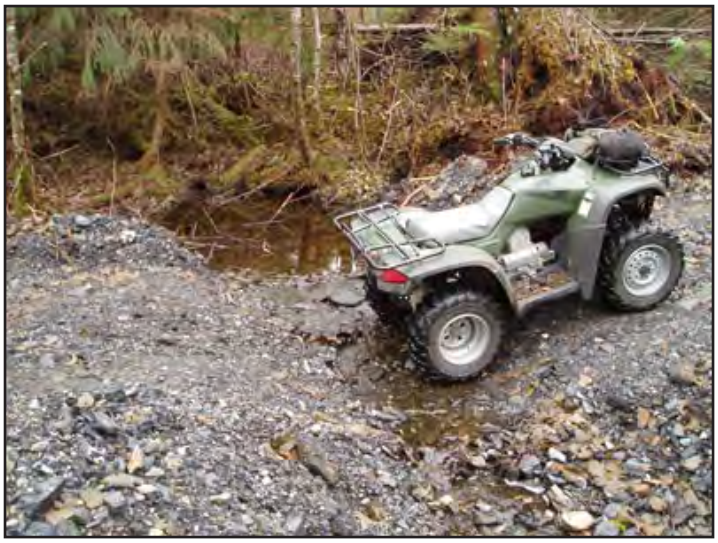
The larger opening in the tank should help prevent spills; however, in the event that spills do occur at the day tank, a new, commercially available product to contain the spills and reduce or eliminate the soil and water contamination will be installed. The containment units come in 2'x4' size or 4'x4'. They are a low profile of about 8" tall. The bottom has holes for water to run out. The pan is packed with hydrocarbon absorbent socks that attract petroleum products, but not water. The top of the pan is covered with a durable, removable plastic grid that can be walked on. As fuel is spilled on the deck it is contained by the absorbent socks. Water falls on the deck and runs through the socks and out the bottom. The absorbent material can be checked and replaced on regular maintenance trips.

For more information, contact Mike Dilger at 907-789-6228, or mdilger@fs.fed.us.

A Winning Combination: OHV Access & Stored Roads

By Reid Stovall, Civil Engineer, Tongass National Forest

There is nothing wrong with low traffic volume on roads—that's what makes Alaska beautiful. But, in order for a road to remain accessible, maintenance is required. Since Prince of Wales Island on the Tongass National Forest has an expanding network of roads, but a stable population, I've spent my first year as a Tongass engineer assembling "road storage" packages.



A vehicle crosses an OHV waterbar after a heavy rain. Both road access and water drainage purposes have been met. Photo by Brian Barr.

When handed the assignments, my thoughts were, "Road storage? I just spent four years at college learning how to build roads, not un-build them." Not to mention, as an avid hunter myself, I didn't want to be the one responsible for closing roads down. I love our existing web of roads on the Tongass and the recreational opportunities they provide. However, after spending an adequate amount of time exploring the road systems on POW, and collecting data for the separate packages assembled, my opinion on road storage started to change.

One of the simplest forms of road maintenance is vehicle traffic. Balanced traffic volumes can keep vegetation down and road materials compacted. With too little traffic volume, Southeast Alaska's alders and rain will smother the roads out of commission. With too much traffic, tire friction and persistence will erode the surface away, creating pot holes, ruts, and even ditch drainage issues as materials get pushed off the road surface.

Ideally, we would love to keep all existing roads functional. Realistically, that requires maintenance, and maintenance costs money. For this reason, our roads are prioritized according to public use. Roads providing the most public use are given a high priority and the roads that are seldom used are given a low priority. Maintenance dollars are allocated annually to keep these roads functional so the needs of the high priority roads are addressed first and the needs of low priority roads are addressed last.

With a diminishing budget, annual maintenance dollars for some of our low priority roads are running too thin. This is why the practice of road storage is becoming popular. Road storage is simply the removal of some or all of the drainage structures (culverts, bridges, etc.) from a road segment, and adding waterbars, where needed, to enable a self-maintaining road prism. (A waterbar is a ditch and/or hump installed across roads and trails to divert runoff from the surface.) The removal of drainage structures and the installation of waterbars restore natural stream morphology through the road prism. The road is then classified as "stored" and closed to passenger vehicle traffic.

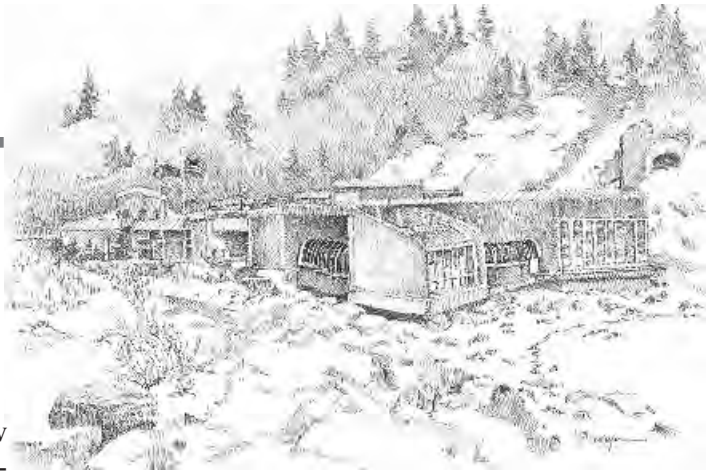
This storage practice targets maintenance issues on our low priority roads. In doing so, however, it nearly eliminates the public's recreational opportunities through the use of these roads by eliminating motorized access and making foot traffic difficult. Hikers must climb in and out of steep waterbar sites.

In Spring 2007, the Craig Ranger District had a new idea that would address both maintenance issues and public access. Hydrologist Brian Barr was given the opportunity to work with engineer Dan McMahon and me to combine an off highway vehicle access function with road storage. We not only created a design executing proper road storage techniques, but also constructed fords at all removed pipe and waterbar locations to improve OHV access. This process minimized road maintenance while continuing public access. These stored roads can still be accessed by four-wheelers or on foot.

The first of these OHV accessible stored roads was completed in November. As an avid hunter and a Forest Service employee, I enjoyed the opportunity to work on such a progressive project that both saved money and provided opportunities for public recreation.

Change Is in the Wind

By Lezlie Murray, Director
Begich, Boggs Visitor Center



There's a change in the volatile winds of Portage Valley these days, and it's only peripherally related to climate. At the much loved Begich, Boggs Visitor Center on Portage Lake, we are contemplating the first modification to our fee program since it was launched as a Fee Demonstration Project in 1999. With budgets shrinking like Portage Glacier, we've had to make some tough decisions, such as closing the visitor center to the general public this winter and last, and cancelling our annual *Nature Spooktacular*. These reductions in service are antithetical to our mission, so we're exploring ways to enhance our services and recover costs for operations and deferred maintenance.

Currently, we charge one dollar for viewing the movie we show at the center. This modest fee barely covers our costs; so, we are proposing a new Standard Amenity Fee of $3 to $5 per adult during the key visitor season. This amended fee would provide access to the movie as well as the exhibits and interpretive programs. Since historically only 12% of our visitation occurs during the off season, with over half of those visitors under age 16, off season is a good time to offer our adult guests a chance to visit the center at no charge. By expanding the current fee program, and looking at new ways to recover costs for facilities and services, we can work on bridging the funding gap. That will allow us to reopen the visitor center on weekends and for special events during the off season.

At the same time, the Forest Service will continue to provide important services to the public at no charge during the key visitor season, such as free access to information services at the front desk, the exhibits in the lobby, the bookstore, and the restrooms. New proceeds will also allow us to expand existing interpretive services and provide full educational programs to better serve the public. We will offer educational passes at no cost to student groups and other special educational groups. People carrying America the Beautiful Passes and Golden Age and Access Passes, as well as children under 16, will be admitted for free.

The center's recently amended business plan examines possible options to help the center continue to offer relevant, meaningful interpretive and educational opportunities about the forest, while becoming fiscally more self-sufficient.

These options include the potential to charge fees for appropriate special events, film festivals or concerts. In addition, the plan considers charging an appropriate fee to make facilities and staff available to the private sector for meetings, small conferences or workshops, trainings, and receptions during the off-season, or when the center is closed to the public.

The Forest Service is also considering an outdoor adventure booking service for private sector outfitter/guides holding permits to operate on the national forest. In addition we are considering a guest interpretive and adventure service which would allow a special group to pay a fee to have a uniformed interpreter lead them on a specially designed exploration of some aspect of the forest.

In the past 10 years of managing Begich, Boggs, I've seen diminishing budgets and glaciers, the opening of the Whittier Tunnel to road traffic, and an array of quality new attractions in Southcentral Alaska to compete for the public's attention. In order to survive and thrive for another 22 years, we must implement some of the recommendations noted above, and probably many others, as well.

Yes, change is in the wind in Portage Valley and that change bodes well for the Begich, Boggs Visitor Center.

We are currently seeking comments on all aspects of our expanded fee program, which is scheduled to start Memorial Day weekend.

The Business Plan can be viewed at:
http://www.fs.fed.us/r10/chugach/

You can share comments by phone or email.
907-754-2316
llmurray01@fs.fed.us

Your comments may be mailed to:
Lezlie Murray
Visitor Center Director
Glacier Ranger District
P.O. Box 129
Girdwood, AK 99587.

SourDough Notes: 60 Years Old!

Born. On January 2, 1948, that simple one-word sentence started an Alaska Region tradition that we call *SourDough Notes*. This long-running publication was first created with a manual typewriter on yellow, 3-hole-punched paper. The mastheads were hand drawn, as well as the popular sourdough figure that graced many of the issues over the years. *SourDough Notes* chronicles the history of not only the Forest Service and our region, but the Territory and State of Alaska as well.

The first issue reported a timber cut on the Tongass in 1947 of 83,395 mbm (1,000 board feet) for a value of $131,255. It also announced an authorization by Congress to construct a road connecting the Kenai Peninsula to the "central road system of the Territory," at a cost of $11 million. Another paragraph said the Washington Office intended to produce a new Kodachrome motion picture in the Alaska Region entitled "Forest Oddities" to illuminate unique forest products such as totem poles, Devil's club brew, spruce root baskets, and Chilkat blankets.

This Winter 2008 issue was created with the latest desktop publishing and graphic software, was sent to a commercial printer, and will have a continuing life on the Worldwide Web. Technology has changed in last 60 years, but the dedication and mission of Alaska Region employees are still what constitute the stories that fill these pages.

Congratulations to all our employees and retirees who have been a part of this six-decade journey.

Teresa Haugh, Editor
Juneau, Alaska 2008

Notes from the Archives

By Valesha Patterson, Public Affairs, Regional Office

Spruce for WWII Airplanes

No. 8, August 2, 1948

A brief ceremony was held in the Regional Office on July 29th at which Howard Hopkins, Assistant Chief of the Forest Service, acted for the Secretary of Agriculture in the presentation of a Superior Service Award to the Alaska Spruce Lot Program, a war activity staffed by members of the Forest Service. The award consisted of a certificate and silver medal and the citation on the former reads, "For outstanding accomplishment under difficult conditions in providing supplies of spruce for airplane construction at a time of critical shortage during World War II." During the period from December 1942 to June 1944 the Alaska Spruce Log Program had sent to Puget Sound approximately 39 million board feet of high-quality logs and supplied to local mills 45 million board feet of lower grade logs. The entire project was particularly difficult because of the remote locality in which the eight logging camps and approximately 700 men operated. In accepting the award for the Alaska Region, Mr. Heintzleman said that he was proud of the contribution made by his group to the war effort .

Forest Service 50th Anniversary

No. 70, February 1955

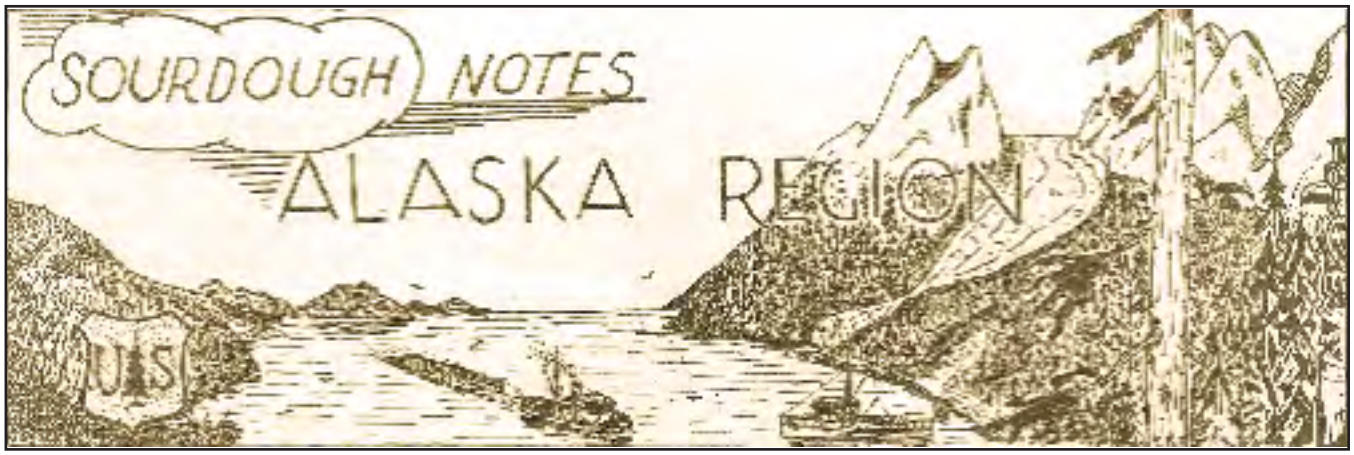
Golden Anniversary Banquet Program
Date: February 4, 1955 Place: Gold Room Baranof Hotel
Master of Ceremonies: .....A.W. Greeley, Regional Forester
Speakers:
Hon. B. Frank Heintzleman ..... Governor of Alaska
Hon. Henry Roden .....Territorial Treasurer
H. L. Faulkner .....Citizen of Alaska for over 50 Years
Dinner Music ..... Frances Mangan
Solos.....Richard Newton

A regional office was established in Alaska on January 1, 1921, with Mr. Flory as Regional Forester. When the Alaska Region was established, the administration of the 2 Forests was separated and supervisor placed in charge of each.

New Technology

No. 85, April 1956

Buck Rogers' rockets have a lot in common with the new machine just installed in the Cartographic section. This gadget does everything but shoot off Roman Candles and we're not at all sure it won't do that. It's the Douthitt Corporation's latest finger-tip control printer, combining a 30"x 40" vacuum frame and 100 amp high-intensity arc lamp. This machine will account for greater economy and efficiency in R-10 map reproduction requirements, and will largely obviate the shipment costly materials outside of processing.



Langille Dies

No. 89 August 1956

William A. Langille, first forest supervisor of the Alaska Forest Service, passed away August 21 in Portland, OR at the age of 84. He was born in Nova Scotia and had come to Alaska in 1898. In 1902 he received a presidential appointment from Theodore Roosevelt and was sent to Ketchikan as forest supervisor when the first Alaska Forest areas were placed under the administration of the Department of the Interior. In 1905 administration of the national forest in Alaska were transferred to the Department of Agriculture and the regional office established at Portland. Mr. Langille continued as supervisor of the Chugach and Tongass Forests until 1910.

Island for Sale?

No. 126 Feb 1960

Anyone have a spare island?

Since Alaska became a state, we have been deluged with requests by people on the stateside who want some of the free land up here, but must admit we were just a little taken back by the request were received not too long ago. It reads:

Dear Sir,

I want to know how much an island would cost, about one acre wide and about one acre long, in the coastal waters of southern Alaska. I don't want bears on it. I want to lease it for one year. In the clipping below is what I want. I want a mountain about 100 to 150 feet high.

New Visitor Center

No. 134 Jan-Apr 1961

Tripelette & Trucano of Juneau has been awarded the contract for the construction of the Mendenhall Glacier Visitor Center.

Guest Editor: Smokey Bear

No. 292 May 28, 1970

Dear Smokey,

My 3 sisters and I watch you every Saturday. I might be able to send in for your kit. I want to fight the bad guys who start fires in the forest. My sister says that she loves you. But she already has a boy friend. Me, I just want to fight.

Your fightin' friend,
Rob W.

No. 292 May 28, 1970

Dear Sir:

Would you please send me a Smokey Bear kit? I really want one. We had a fire here in Kenai it was terrible. I'm never going to be as dumb as the people who started it. Our forest was so lovely and now it's burnt and ugly. Boy was it hard to put out—real hard. I know because I've seen people who fought fires. When we drove to Anchorage we saw a moose who had scars of fire all over it. Poor things. So many animals get killed. Well, got to go.
Your friend,
Jami E.

No. 289 February 1, 1970

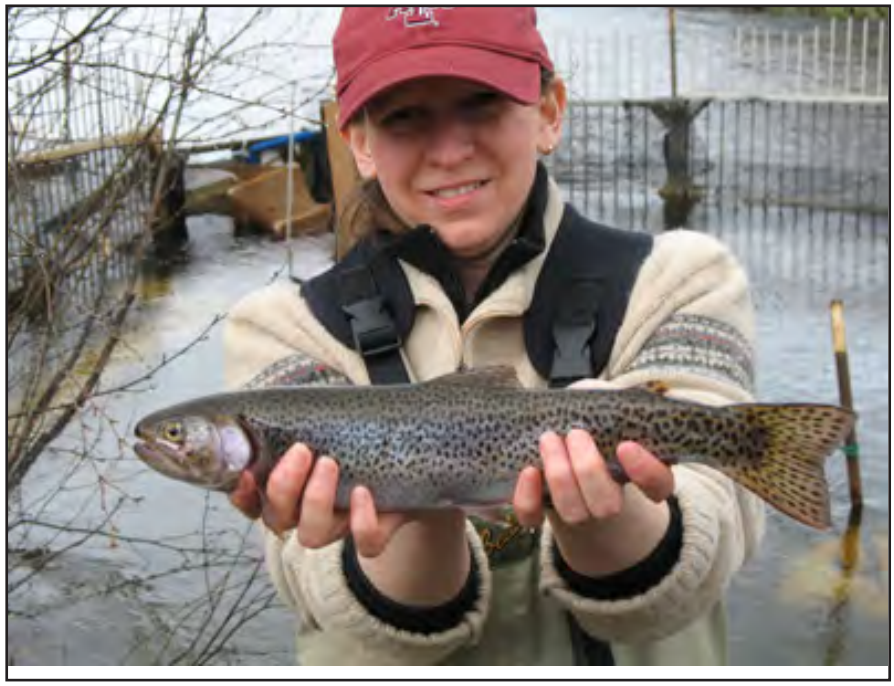
Smokey the bear is introduced to a Buddhist Monk during his tour of Taiwan. Planning for the trip began in October when District Ranger, Dick Woodrow received a letter from an Air Force officer stationed in Taiwan who wanted to borrow Smokey for a Taiwan Boy Scout Camporee. Smokey, always happy to meet his public, made a big hit with the natives and military dependents alike. So, it was with reluctance that he returned to Anchorage and the mundane life where he now awaits his next call to adventure.

Published: Secrets of the Cutthroat Trout

By Ken Hodges, Fisheries Biologist, Cordova Ranger District

The cutthroat trout of the Copper River Delta would probably prefer to keep their sex lives anonymous, but two recent journal publications are exposing their secrets. A genetic analysis of hybridization between cutthroat and rainbow trout was recently published in the Transactions of the American Fisheries Society[1], and a study of cutthroat trout spawning and migration patterns appeared in the North American Journal of Fisheries Management [2].

Both of these studies took place on the Cordova Ranger District and were either assisted or conducted by district personnel. The success of both studies depended on the relatively pristine, natural conditions of the Copper River Delta.



Fisheries technician Traci Walther holds a cutthroat trout that will have a piece of its fin clipped for genetic analysis. About 4% of the fish captured at the 18 Mile Creek weir were cutthroat-rainbow trout hybrids.

The main purpose of the hybridization study was to see if interbreeding of cutthroat and rainbow trout was occurring under natural conditions, according to Dr. Gordon Reeves, with the Pacific Northwest Research Station and co-author of the article. In the Lower 48, fish stocking, development in river valleys, and habitat degradation have all had a disruptive influence on the natural habitat use and reproductive segregation of these species.

"People have been looking at hybridization as an aspect of ecosystem disturbance," Reeves explained. "The habitats of cutthroat and steelhead (anadromous rainbow trout) are normally segregated, with cutthroat in the smaller high-elevation streams. Land management practices can force the cutthroat to move out of these streams and share habitat with steelhead," Reeves said, with the implication that shared habitat is more conducive to interbreeding. "One researcher was actually using hybridization as an indicator of habitat degradation. The natural hybridization we found on the Copper River Delta calls into question the assumptions being made here."

The authors admit that this study raises more questions than answers. With the high degree of interbreeding in some Copper River Delta streams but not others, and the discovery of fertile hybrids, it is not clear what mechanisms are keeping the species distinct. Nor is it clear what the effects of hybridization might be in regard to the genetic fitness of the hybrids.

In any case, the authors conclude that it will be important to define conservation and management objectives, presumably of both the populations and habitat, which will allow these species to follow their evolutionary paths without interference wherever they might lead.

The article on cutthroat trout spawning and migration patterns also reflects the importance of maintaining habitats. David Saiget, primary author and former fisheries technician on the Cordova Ranger District, used the relatively new radio-tag technology of the time to determine where cutthroat trout were spawning. But during subsequent tracking he found a wide variety of cutthroat trout migratory and life history patterns.

"David was one of the first to use radio-tracking with cutthroat trout," co-author Matt Sloat says. "Others had used weirs and scale analysis to infer resident (living in a single stream) and anadromous (migrating to sea) life history behavior, but he found these as well as two types

of potamodromous behavior (migrating from lakes or large rivers to small spawning streams) all in one relatively small area."

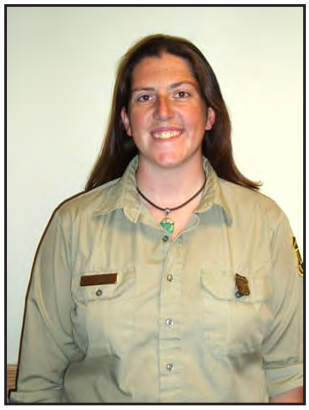
[1]Williams, Ian, Gordon H. Reeves, Sara L. Graziano, and Jennifer L. Nielsen. 2007. *Genetic Investigation of Natural Hybridization between Rainbow and Coastal Cutthroat Trout in the Copper River Delta, Alaska*. Transactions of the American Fisheries Society 136:926–942.

[2.] Saiget, David A., Matthew R. Sloat, and Gordon H. Reeves. 2007. *Spawning and Movement Behavior of Migratory Coastal Cutthroat Trout on the Western Copper River Delta, Alaska*. North American Journal of Fisheries Management 27:1029–1040.

A suspected cutthroat-rainbow trout hybrid from the Martin River area that has a relatively small mouth like a rainbow trout and is heavily spotted like a cutthroat trout.

Two Receive Prestigious Awards

By Lezlie Murray, Begich, Boggs Visitor Center and Kristi Kantola, Regional Office



Some days they have so much fun they forget they are working. That is one of the reasons Stephanie Rae Israel and Jim Sumner of the Glacier Ranger District do their jobs so well.

Both were recently honored for accomplishments in interpretation and conservation education. On a normal workday you might find them:

- Donning fishing waders and talking about Alaska's salmon;
- Snowshoeing with third graders studying trees, or the water cycle, or weather;
- Presenting a program on the Alaska Marine Highway about the impacts of the Exxon Valdez oil spill; or,
- Organizing events for youth or visitors to Begich, Boggs Visitor Center.

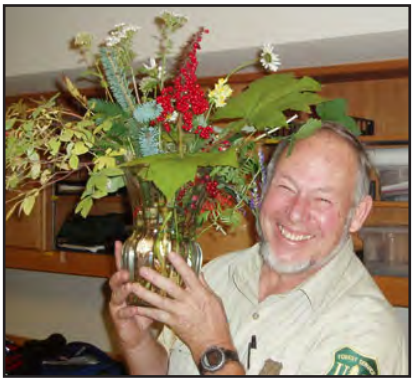
Israel, Lead Visitor Information Assistant at Begich, Boggs Visitor Center, received the national *Gifford Pinchot Excellence in Interpretation and Conservation* award in November. The annual award honors the person judged to have demonstrated the highest skill in interpretation and conservation in the Forest Service in the nation.

Israel created a memorandum of understanding between the Anchorage School District and the Chugach National Forest to develop the first conservation education plan for the Glacier Ranger District, which reached thousands of Anchorage school children. She was also recognized for co-leading the interpretive/education program for the Chugach Centennial *Wild at Heart* Celebration; organizing and serving as emcee for musical groups for the Celebration of Culture and Art; and, working as a frontline supervisor at Begich, Boggs Visitor Center.

Israel was honored, along with eight other Forest Service nominees from across the country, at the National Association for Interpretation national workshop in Wichita, Kan. She received a $500 cash award for being named the Alaska Region nominee and $1,000 for receiving the national award.

Jim Sumner, Visitor Information Assistant, Begich, Boggs Visitor Center, for nine seasons, was named the 2007 *Seasonal Interpreter/Conservation Educator of the Year* for the Alaska Region.

Sumner was recognized for providing exceptional customer service; developing a successful public education program; serving as a partnership mentor for BBVC interpreters; and for presenting effective interpretive programs, hikes and special educational activities.



The Seasonal Interpreter/Conservation Educator of the Year award is co-sponsored by the Alaska Region and the Alaska Geographic Society. Sumner received $150 donated by the Association and a certificate signed by Regional Forester Denny Bschor and Association Executive Director Charles Money.

Teaching Natural Resources in Angoon

By Robbie Piehl, Biological Science Technician and Kristin Stelck, Wilderness Educator
Admiralty National Monument

Angoon students enjoy a lesson on brown bears, a topic that generates much enthusiasm on the island known as the "Fortress of the Bears." Photo by Robbie Piehl.

Admiralty Island National Monument, with over a million acres of national forest, is home to only one village: Angoon. In 2007, the monument's fish, wildlife and ecology staff made a long-term commitment to the students and teachers of the Angoon school district. Supported through funds from the Tongass' fisheries, wildlife, and vegetation /watershed programs, Angoon students are learning about natural resources and Forest Service projects on the island.

Last spring, Robbie Piehl and Kristin Stelck joined two staffers from the Alaska Department of Fish and Game for a two-day, hands-on education marathon reaching all ages in Angoon's K-12 classes. The 100+ students greeted them with open arms. Their enthusiasm and interest enhanced every lesson.

Amphibians and salmon were the focus of the session. Students learned about the different species on the island and their life cycles, as well as science techniques to estimate the size of a population based on random sampling and mark-recapture techniques.

Piehl and Stelck returned last fall for five more days. They visited each grade twice, covering invasive plants, wilderness, and fish, wildlife and ecology projects on Admiralty Island. They were welcomed as warmly as before by both the students and the teachers. Angoon, with a population of 600, doesn't have a museum "downtown," a fish hatchery around the bend, or science lab close by. Hence, the teachers readily support outside educators who offer the students access to the world beyond the village.

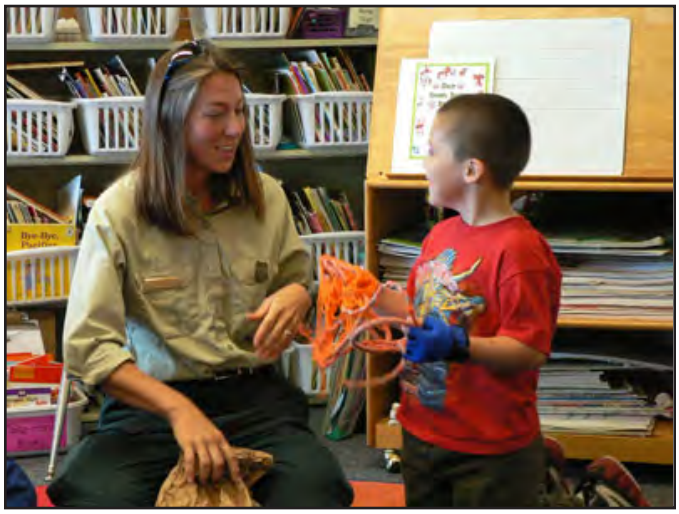
Students of all ages enjoyed a slideshow of descriptive photos. Entertaining stories informed the students about Forest Service projects being conducted in their own backyard. The students asked questions such as, "What kind of experience is needed to be employed by the Forest Service?" and, "Where is Pack Creek?" The younger students told the instructors how bears are good because they eat garbage, a myth that Piehl and Stelck tried to dissuade.

The teachers asked, "What can we do to improve the sockeye salmon run in the Kanalku Lake watershed?" The watershed is a short distance from Angoon and plays an important role in subsistence fishing. Piehl and Stelck addressed both the community's concerns about the situation and the options being investigated by the Forest Service and ADF&G to restore the salmon run.

The wilderness geography lesson challenged junior high and high school students to use new map skills and learn about concepts like latitude and longitude. It was rewarding for the teachers to watch their students working together and applying their skills to solve problems. Students asked, "What does ownership mean?" and, "Is land ownership the same as land management?"

The students soon realized, "Alaska has a ton of wilderness!" They wanted to visit Kootznoowoo

Kristin Stelck leads students to the discovery of natural resources around them. Photo by Robbie Piehl.



A young scientist determines what does and doesn't belong in fish and wildlife habitat. Photo by Robbie Piehl.

Students in grades 4-6 played a game to illustrate the effect of invasive plants on a native plant population. The game was challenging and entertaining, and taught them exactly what an invasive species is. They created a journal of 15 invasive plants in Southeast Alaska. The teacher was eager to teach the children the Tlingit words for the invasive plants, which could prove difficult. The plants were not around when the Tlingit language evolved.

Angoon teachers are now eager for Forest Service assistance with natural resource lesson plans. Lance Lerum, Admiralty Monument Fish, Wildlife, and Ecology Program Leader, said his objective is to provide information and lessons that will focus a child's curiosity on the natural world around them and assist teachers in providing students inspiration for continuing on to higher levels of education. Time will tell if the Forest Service is successful in this goal.

Ice and Alpenglow

By Laurie Ferguson Craig, Information Assistant, Mendenhall Glacier Visitor Center

They came from South Africa, Belgium, Australia, Italy, Canada, Ukraine, Puerto Rico, and Finland. Summer visitors to the Mendenhall Glacier? No, winter visitors. And from 31 states and 19 Alaska towns.

They came to see blue ice, peach-colored alpenglow, northern lights, and a black wolf.

"The woman who sat beside me on the plane lives in Juneau," a visitor from Ohio said as she searched the frozen lake. "She told me to come out to the glacier and look for Romeo." Within a few minutes the black wolf appeared from the forest. One of the staff swung the visitor center's spotting scope toward the big animal on the snow-covered lake shore and showed the Ohioan where to look. Romeo tilted back his head. The woman stepped outside the visitor center to listen to his howl carried on the light breeze from a half mile away. She returned with a huge smile.

While summer brings the greatest number of visitors (396,000 in 2007), winter also lures "Outsiders." Some have come to Juneau for job interviews or conventions. Others serve as itinerant medical staff at the hospital, or as interim clergy. Some have come to see Alaska in winter when the crowds are absent. Some are dignitaries visiting the state capitol, the governor, or the legislators who enjoy the warm interior and elevated view from the center perched on the bedrock cliff.

Alaskans and locals enjoy the visitor center during winter, also. Statewide high school football teams in the fall, hockey teams in the winter, and basketball teams in the spring come from all over Alaska to play Juneau teams. A visit to the glacier is a popular side trip. One Oregon team flew north to play Juneau's football team in October. They lost the game, but twice toured the glacier to watch bears fish for spawning coho salmon in Steep Creek.

Many Juneau residents like the fact that the usual $3 fee is not charged in winter. They explore exhibits and peer at the glacier through spotting scopes. As many as 30 youngsters and an equal number of adults join Saturday morning Kids' Day programs presented by visitor center staff on a variety of conservation education subjects. Each week about 200 locals attend Friday night natural history Fireside lectures during January, February and March.

Visitor center staff set out a guest book in late November. Its pages reveal the home towns of visitors. Personal stories from visitors shared with center staff reveal the real value of being open Thursday through Sunday from 10 a.m. to 4 p.m. from October through April.

New Faces in Firefighting

Training the Locals in Wildland Fire

By Seth Ross, Hoonah District Fire Management Officer, and Mary Emerick, Recreation Special Uses, Fire, Tongass National Forest

On a crisp day in October, a rookie hand crew clad in the familiar yellow shirts, green pants, and hard hats, with a backpack each, assembled for a safety/tactical briefing, marched into the muskeg directly behind the Ketchikan elementary school, and put some of their newly acquired knowledge and skills to the test. Upon reaching a flagged line on the edge of the muskeg, they began to construct a fireline as a cohesive crew in hopes of successfully containing a simulated wildfire. Familiar early signs of teamwork were displayed as jokes and laughter made their way up and down the line.

At first glance, a Ketchikan native might have thought this was déjà vu, after all, a fast moving wildfire torched a small portion of this very area in 2005, immediately threatening the North Point Higgins Elementary School. This time around, though, the commotion was produced by a planned field exercise portion of one of the recent basic wildland firefighting training sessions that have been conducted for structural firefighters across Southeast Alaska by the Tongass National Forest Fire Program. In fact, the copious amount of moisture that Southeast Alaska can provide was fodder for many of the jokes that October day.

The Ketchikan class was the fourth to graduate from the 40-hour introductory curriculum. Similar classes were successfully completed in 2004, 2006 and 2007, specifically targeting structural firefighting departments in Juneau, Hoonah, Sitka and Ketchikan. Despite a challenging schedule of evening classes, lectures, presentations, and practical exercises, the participants responded with both interest and enthusiasm.

While the students brought years of structure firefighting expertise to the class, they were actively challenged to make the required shift from the approach to successful structural firefighting efforts to the approach to successful wildland firefighting efforts. This is no small task in Southeast Alaska, where wildfires are infrequent, often small, and easily extinguished. Students who have successfully passed the basic wildland firefighting course have taken the first step toward receiving a wildland firefighting "red card." Once achieved, red card wielding graduates can make themselves available for wildland firefighting assignments and other "all risk" assignments across the nation. These graduates also offer a valuable alternative when attempting to assemble a qualified 20-person wildland firefighting crew from Southeast Alaska throughout any busy local and/or national fire season.

Most recently, Seth Ross, the District Fire Management Officer for Hoonah and Sitka fire zone, led an accomplished cadre with many years of wildland firefighting experience under their belts as they successfully conducted a basic wildland firefighting training session. This instructor core possessed more than 50 seasons of varied wildland firefighting experience to draw from and share. These students were lucky enough to have benefited from both the willingness to contribute and the hard won knowledge and experience of Matt Durfey from the Wrangell Ranger District, Mary Emerick from the Sitka Ranger District, and Rob Berney from the Thorne Bay Ranger District. Throughout five nights and a portion of the weekend crammed with instruction, these students learned about wildland fire behavior; what to expect when mobilized; how to remain prepared; basic wildland firefighting tactics; specific safety measures; the National Incident Management System; teamwork and crew dynamics; and the equipment commonly used during wildland fire suppression operations.

On the final field exercise, the class as a whole was assigned to construct an adequate fireline while gathering and recording the necessary components of the weather, successfully deploying their last resort fire protection shelters, familiarizing themselves with the wildland water delivery systems, and finally, field sharpening and maintaining their assigned hand tools.

In total, 33 paid and volunteer fire department personnel from Ketchikan, Sitka, Hoonah and Juneau have successfully completed the 40-hour wildland firefighting course. Recent knowledge has been put to the test as six fire department personnel in Hoonah assisted in suppressing a wildland fire in 2007 while two Sitka Fire Department firefighters helped snuff out another one this fall. Cooperative firefighting agreements have been developed and implemented across the forest allowing for a mutual recognition of entities and, more importantly, the chance to develop some local response options together.

In the spirit of teamwork, these classes have provided another avenue for the Forest Service to reach out to its neighbors on local levels. It is a formal presentation of some hard earned corporate knowledge and a chance for different firefighting agencies to develop working agreements thereby greatly enhancing safe and successful operations during situations that demand a Unified Response. As for the personal gain for individual students, it has been summed up by the recent actions of one of the graduates who, despite the cold and snowy weather "bought a fancy pair of leather boots" and seems to be gung ho to be mobilized. Another recently qualified wildland firefighter merely reports, "I started running today." Perhaps next season they will join the more than 75 Tongass employees who are ready to battle flames across the country.

The Green Knight

By Brenda Gillespie & Sitka Ranger District Staff

When you are so good at what you do that you earn knighthood in the course of doing your work, you know you've made the right career choice. Jim Case, Information and Education Technician, Sitka Ranger District, was officially knighted by the Girl Scouts of Troop 134.

Jim and our troop share a long history. In September 2004, when we were enjoying a rainy camp out at Starrigavan, Jim was there to help build the fire.

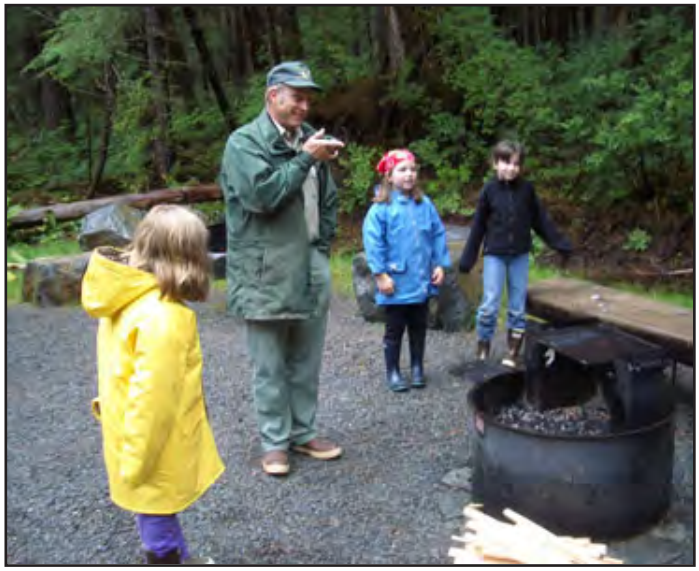
"On our very first camping trip," scout Chaya Pike remembers, "Jim brought us some fire wood and told us, 'You ladies are lucky. As Boy Scouts we had to cut our own firewood!'"

By January 2005, we were hard at work earning the Tongass National Forest Junior Ranger badge. Jim taught us about poaching wildlife, led us on a fun tour/scavenger hunt at the Forest Service White House, and introduced us to gyotaku (the art of fish printing).

Troop 134 has pretty much adopted Ranger Jim. He is knowledgeable about everything outdoors, generous with his time and talents, and he's just plain fun to work with. Jim's presentation on plants at a Spring Camporee was entertaining. "At the spring camporee, Jim told us how the Tlingits cooked fish wrapped in skunk cabbage. He didn't have any salmon, so he used a hot dog. It was very funny and very tasty," said Pike. "We all enjoyed learning about orienteering with Jim at Day Camp. His enthusiasm for working with the girls is amazing, and we appreciate his support at cookie sale time, too."

The troop was able to help Jim by putting together a felt-board of the Tongass ecosystem in 2006. Scouts cut out terrain, plants and animals for the project. We wrote a lesson plan, and presented the project to a kindergarten class with Jim's help.

Madison Stocker said "I think that when Ranger Jim was helping us, we learned a lot about nature. He helped us learn a lot more than we would have."



Information and Education Technician Jim Case was officially knighted "Sir Jim" by Sitka Girl Scout Troop 134 for his generosity and extensive knowledge of "everything outdoors."

Our biggest project, though, was working with Jim to make a rubber fish. Replica rubber fish are available in a wide variety of species for educational purposes and for gyotoku, but Jim wanted local fish, specifically, rockfish. So we started working on making happen. We soon learned it is expensive to get a rubber fish made. Then Jim said, "Why not make it ourselves?" And since we didn't know any better, we agreed. The process is long and interesting and involves plaster and liquid latex, and of course a dead fish.

For our troop, the project was a big part of earning our Bronze Award (the highest award available at the Junior Girl Scout level), and we are thrilled that Ranger Jim was there with us. "Ranger Jim has been one of the most influential people who has helped our troop" said Cassie Gillespie, "Jim has a sense of humor and great teaching abilities."

For his many hours of working with our troop, Jim was presented with the Green Knight at a ceremony in November. "We have really enjoyed working with Jim," said Lione Clare. "He is an amazing person. Jim is awesome!"

Implementing Fees at Fish Creek

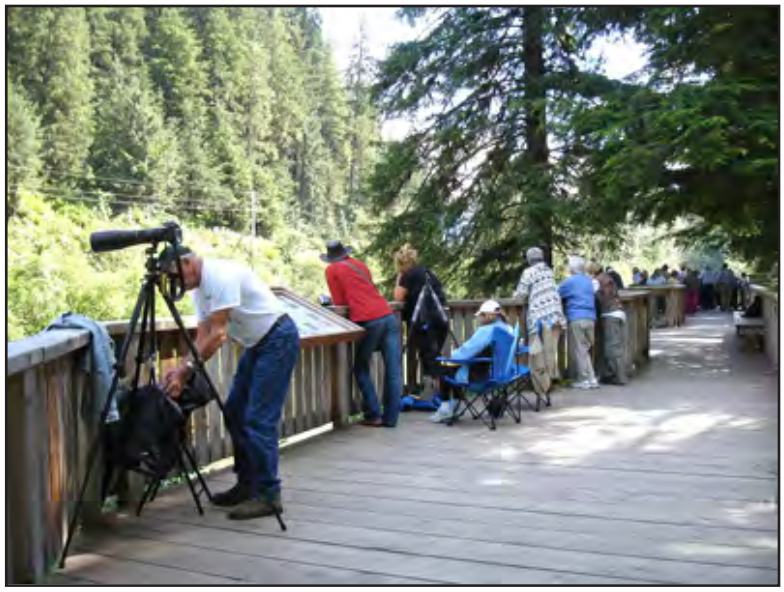
By Karen Brand, Recreation/Wilderness Staff, Ketchikan-Misty Fiords Ranger District

At the popular Fish Creek Wildlife Viewing Site on the Tongass National Forest, visitors have an opportunity to see brown or black bears, wolves, river otters, beaver, eagles, and record-sized chum salmon. Wildlife is drawn to the strong fish run that frequents the shallow stretch of the creek located three miles north of Hyder, Alaska, on the Ketchikan-Misty Fiords Ranger District. In 2003, the Forest Service constructed a series of platforms and decks, with a capacity of 200 people, that would allow visitors to view the wildlife at close range. During the spawning run, the high visitation requires that the site be staffed 16 hours a day, seven days a week

For many years, the site has been popular with travelers driving the Alaska-Canadian Highway and with Canadian residents. Visitors learn about the site through its reputation, advertisements or from other travelers along the road. On busy days, the site may have as many as 300-400 visitors, many of whom return year after year, for as long as six weeks at a time.

As use increased, the ranger district started implementing fees using the Federal Land Recreation Enhancement Act. The first challenge in the process was gathering the required comments from the visitors who use the site. Since more than half are from Europe or Canada, collection of public comments had to be done a new way! District staff erected signs and encouraged visitors to submit their comments via e-mail. They also made use of a user-developed website to ask for comments regarding the fee proposal. See http://www.fishcreek.org. Over 100 comments were submitted from as far away as the Netherlands, England, Germany, and Japan. A majority of respondents were in support of paying a reasonable fee.

The location of Hyder led to some interesting challenges in collecting the fees. Hyder is situated on the mainland 75 air miles northeast of Ketchikan. Hyder has fewer than 100 residents. Although Stewart, British Columbia, is only three miles away and noticeably larger at 700 residents, neither town has a bank. In addition, everyone pays for services in Hyder with Canadian funds. The district worked through these challenges by collecting fees in both U.S. and Canadian currency, and then getting money orders at the respective post offices in the different communities.



Visitors flock to Fish Creek Wildlife Viewing Site in Hyder, Alaska.

District staff also soon learned that no one wants to stand in line to pay their fee while others are on the platform photographing a brown bear sow teaching her cubs to fish. They also learned that visitors dislike standing in line in the rain to pay their fees. To solve these issues, the district joined in partnership with local Hyder businesses who were allowed to purchase the permits at wholesale and sell them to retail customers. Even the Hyder Post Office joined in. Local Hyder business owners enjoyed newly generated walk-in traffic, and congestion at the at the bear viewing site decreased. The goal is for 75% of visitors to purchase their permits in town.

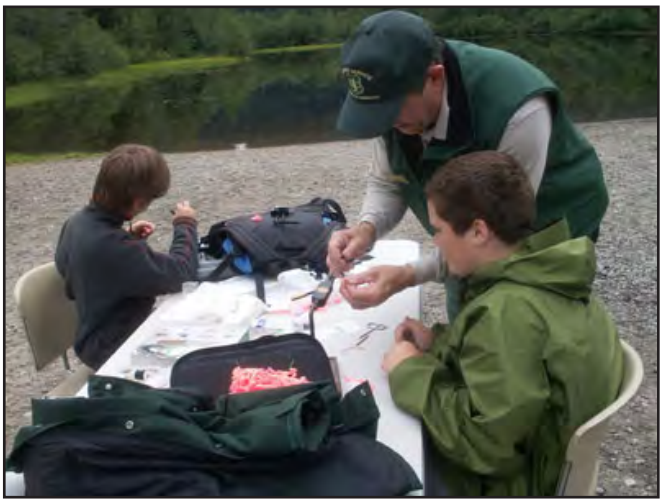
Fee permits were established at $5/day, $10/three days, $20/week, and $75/season. Interagency America the Beautiful passes (formerly known as the Golden passes) are also accepted. The printed permits are of high quality and most visitors want to keep them as souvenirs.

Overall, the first year of fee collection was a great success. Fees totaled over $54,000 in 11 weeks. This will enable the Forest Service to offset the increasing costs of operating and maintaining the site and allow for additional improvements to better serve the visiting public. While there will be a few changes for next year, the district is confident hey can handle whatever new challenges might be ahead.

For more information about the Fish Creek Wildlife Site contact the Ketchikan-Misty Fiords Ranger District, (907) 225-2148. The Forest Service also has an office in the Hyder Community Association Building (250) 636-2367 which is open April to September.

Crystal Lake Day Camp

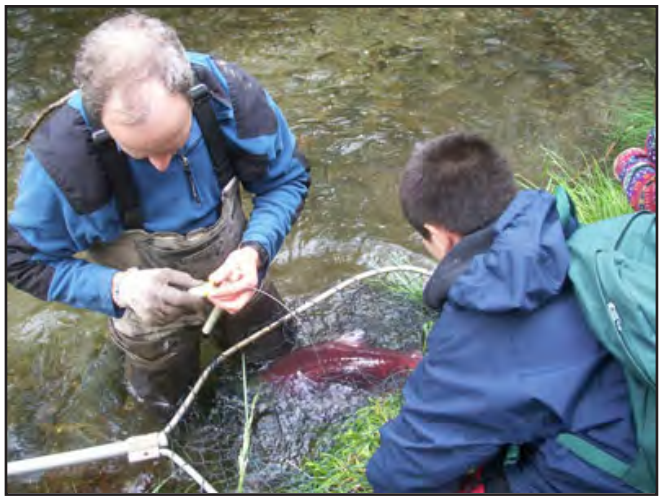
By Karen Maher, Conservation Education Specialist, Juneau Ranger District



Left: Lindsey Edgar joins students in watching for bears during "Fur and Feathers" day at Crystal Lake Day Camp. Right: Doug Jones teaches the fine art of fly tying. Photos by Karen Maher.

Once again this summer, Juneau Ranger District plans to get more kids into the woods by hosting Crystal Lake Day Camp for 10-13 year olds. This program, started in 2006, enables youth to experience nature through self-exploration and scientific data collection. Seven weekly themes offer a variety of Forest Service topics, encouraging participants to return week after week for new adventures.

The Day Camp is based in the Dredge Lakes area of the Mendenhall Glacier Recreation Area. A 15-minute walk from Juneau's new district office brings the group to base camp—a yurt on the shore of Crystal Lake. The lake offers a beautiful setting with ample opportunity to view wildlife, observe plant succession, study minerals, or simply explore in this once glacier-covered area.



Demonstration of salmon tagging.

Guest scientists contributed their expertise each week, exposing participants to a variety of careers. To emphasize boating and water safety during Recreation Week, kids had the opportunity to try on a variety of personal flotation devices and practice throwing life rings, courtesy of Coast Guard Auxiliary. AJ, a Northern harrier, brought his volunteer rehabber from the Juneau Raptor Center to familiarize a group of boys with raptor characteristics. Twice, NOAA staff led activities related to weather and climate, focusing on reading weather signs to make safe recreation decisions. Steep Creek sockeye salmon were tagged and monitored with help from district fisheries biologists. Additional assistance came from fire crew, geologists, bird biologists, and archaeologists.

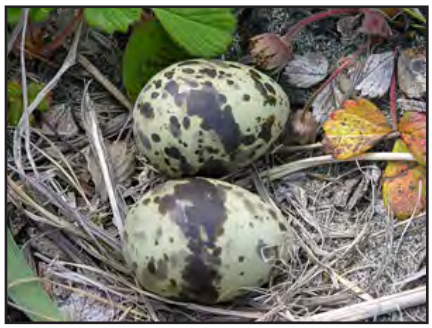
Highlights of last summer's sessions included wildlife sightings, killdeer nests, and an overnight camp out in the yurt. Daily changes by beavers were easily observed, including a new lodge that was built over a weekend. One session, kids were able to closely observe a beaver munching on a cottonwood branch. The group discovered a nest of four killdeer eggs, when "mom" unsuccessfully tried to lead us away from the nest. A few days later we returned to see if the eggs hatched, only to find the entire area flooded. Mother Nature was not kind to some ground nesting birds in July. The overnight campout came complete with campfire stories and properly timed sound effects, thanks to the two beavers swimming nearby. Early morning was perfect for wildlife sightings of bear, deer, goshawks, beavers.

For more information, visit: http://www.fs.fed.us/r10/tongass/districts/juneau/daycamp.shtml.

Audubon Recognizes Coastal Wetlands as Important Bird Areas

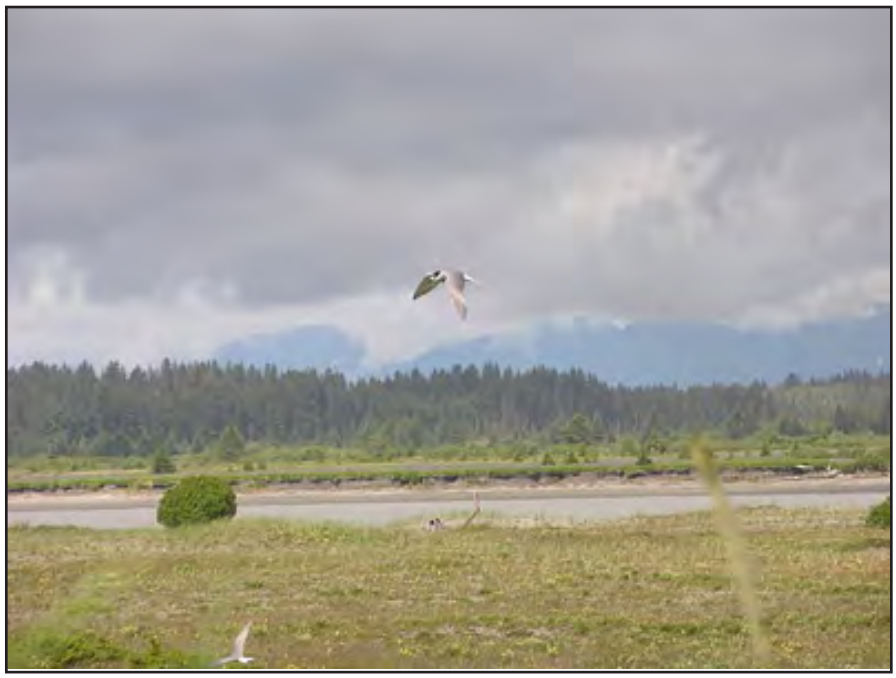
By Melissa Cady, Wildlife Biologist, Wrangell Ranger District, and Susan Oehlers, Wildlife Biologist, Yakutat Ranger District

Yakutat's Black Sand Spit and Wrangell's Stikine River Delta recently joined the ranks of 130 other Important Bird Areas across Alaska. Audubon's Important Bird Areas program is a voluntary, non-regulatory, global effort to identify those areas that are most important for maintaining bird populations and to focus conservation efforts at protecting those sites. Selection criteria for sites are science-based and rely on assessment of bird populations using the area that may be vulnerable due to conservation concerns, limited range, or congregatory behavior. Since the IBA Program was established in the 1980s, over 8,000 sites in 178 countries have been identified as Important Bird Areas. Other sites in the Alaska Region include the Copper River Delta near Cordova, and Berner's Bay and Mendenhall Wetlands near Juneau.



Tern nest on Black Sand Spit near Yakutat. Photo by Jennifer Wheeler, U.S. Fish & Wildlife Service.

The Copper River Delta on the Chugach National Forest and the Yakutat Forelands and Stikine River Delta on the Tongass National Forest comprise the region's Key Coastal Wetlands. These areas are recognized by the region for their globally significant natural capital and ecosystem value as functioning, largely undeveloped coastal wetlands. Audubon has already recognized the Copper River Delta as an IBA site of Global Importance. The National IBA Technical Committee will assess all available data to categorize the two new Tongass sites according to their scale of significance; both sites are currently recognized as state level IBAs and are being considered for designation as sites of Global Importance as well.



Aleutian terns on Black Sand Spit near Yakutat. Photo by Jennifer Wheeler, U.S. Fish & Wildlife Service.

Yakutat's Black Sand Spit is a 10-mile long, narrow, coastal, black sand barrier between the Situk/Ahrnklin Estuary and the Pacific Ocean. The combination of strong tidal and wave action, fluvial processes, and plant succession have created a dynamic sand dune community on the spit, providing suitable nesting habitat for Aleutian terns. Aleutian terns are a species of conservation concern in the North American Waterbird Conservation Plan and the State of Alaska's Comprehensive Wildlife Conservation Strategy, and have been named to Audubon's Alaska Watch List due to their limited breeding distribution, relative abundance and apparent downward population trend. The Black Sand Spit tern colony may be the largest breeding colony of Aleutian terns in the world, hosting up to 1/3 of Alaska's population of Aleutian terns and a significant proportion of the global population of this species. Aleutian terns have been documented on the spit as far back as 1923, and the colony appears to be stable despite declining populations elsewhere.

The Stikine River Delta is of international importance for resident and migratory wildlife. The Stikine's silt laden waters have created an extensive delta, covering over

11,000 hectares (about 27,000 acres) of freshwater and tidal wetlands. The mud flats are an important stopover in spring for at least 14 species of migrating shorebirds. As many as 3 million shorebirds stop to refuel on invertebrate rich mudflats in late April and early May. In addition to shorebirds, the grass flats of the delta support tens of thousands of snow geese, many species of ducks, and sandhill cranes during critical stages of their migration. The delta also boasts one of the highest concentrations of bald eagles in North America when they are drawn to the spring eulachon run. Bird species dependent on this area for successful migration may migrate to Alaska's North Slope, Russia, Central and South America, and even as far away as Antarctica.

The grass flats, tidal sloughs, and mudflats of the Stikine River Delta provide a globally important migration stopover site for several species of shorebirds and waterfowl. Photo by Dan Fehringer, Ducks Unlimited.

Dr. Iain Stenhouse, Director of Bird Conservation, said, "Audubon Alaska is proud to have worked with the U.S. Forest Service and the Yakutat Tlingit Tribe, and to see these sites identified as Important Bird Areas. I have every confidence that both sites will be recognized as globally significant IBAs. We look forward to seeing the results of increased monitoring and research attention at these sites."

Tern chick on Black Sand Spit.

The IBA designation will create awareness of the importance of these areas among the local communities and beyond, thereby instilling a conservation ethic and promoting continued existence of these unique wildlife resources. Future monitoring or habitat protection/enhancement projects will also be directed toward these goals. International recognition of these sites may also promote ecotourism opportunities that could benefit the local economies of Yakutat, Wrangell, and Petersburg.

Learn more about Audubon's IBA program at http://www.audubon.org/bird/iba/index.html.

Open House

Juneau Ranger District and Admiralty National Monument held an open house January 22 to allow area employees, friends, and neighbors to enjoy coffee and cookies and to take a look at their new home on Mendenhall Loop Road. They are located next to the National Weather Service.

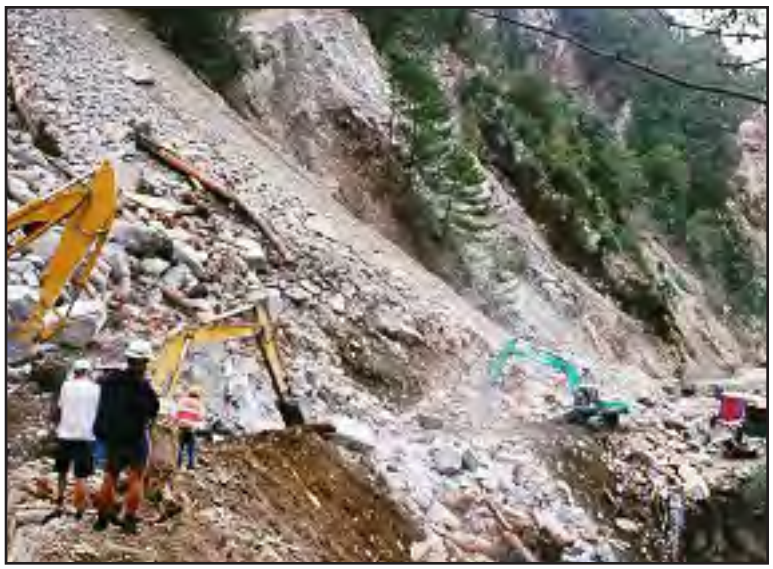
The building is made from western red cedar that came from the Tongass National Forest. It is situated on the terminal moraine left behind when the Mendenhall Glacier began its retreat 250 years ago.

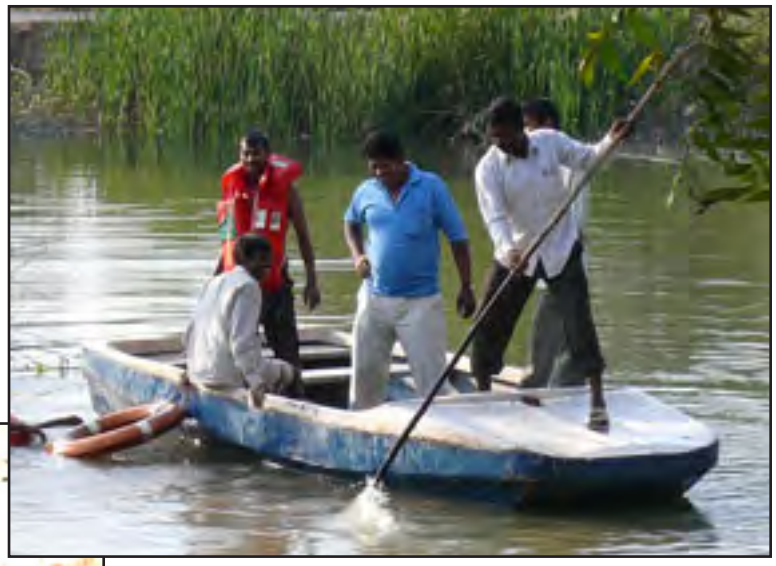
Incident Command System Goes to India

"Disasters in India are not fires—they are earthquakes, cyclones, and floods," said Ron Knowles to regional office employees who gathered in January to hear him share about his trip to Gujarat, India.

Traveling as part of the Forest Service's International Programs, Knowles arrived in India January 2007 for a six-month assignment to assist the Ministry of Home Affairs in researching the adaptability of the Forest Service's Incident Command System for dealing with local disasters. Gujarat was identified as a pilot state to test the proposed system. An action plan was formed to train Gujarat teams to manage incidents should there be a major disaster.

Adaptation and planning meetings were initially held in Gandhinagar. Later, ICS courses were taught by Indian instructors with technical expert support from two Forest Service consultants. Basic, intermediate and disaster simulation courses were developed for three pilot districts, with classes taught in Gujarati from course materials written in English. The training was fast-tracked so that teams could gain basic competency before cyclone and monsoon seasons arrived in June.





Top right: A backhoe is used to clean up flood damage in India.

Bottom right: Students practice water rescue in a basic disaster simulation course.

Bottom left: Forest Service Incident Business Management Coordinator Ron Knowles enjoys afternoon tea.